

A2 cont'd

(n) Z-alkylene-NR³⁰R³¹ where Z is -NH-, -N(alkyl)- or -O-, and R³⁰ and R³¹ are independently of each other, hydrogen, alkyl or heteroalkyl.

- Sub 2
16. (Amended herein) The compound of Claim 5, wherein R³ is:
- (a) heteroalkyl optionally substituted with a heteroaryl or a heterocyclyl group;
 - (c) heteroalkylamino;
 - (d) optionally substituted heterocyclalkyl;
 - (e) optionally substituted heterocyclalkoxy;
 - (f) optionally substituted heterocyclalkylamino;
 - (g) -Y-(alkylene)-R⁹ where Y is a single bond, -O- or -NH- and R⁹ is optionally substituted heteroaryl, -CONR¹²R¹³, SO₂R¹⁴, -SO₂NR¹⁵R¹⁶, -NHSO₂R¹⁷ or -NHSO₂NR¹⁸R¹⁹ where R¹², R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R¹⁹ are independently of each other hydrogen, alkyl or heteroalkyl; or
 - (h) Z-alkylene-NR³⁰R³¹ where Z is -NH-, -N(alkyl)- or -O-, and R³⁰ and R³¹ are independently of each other, hydrogen, alkyl or heteroalkyl.

17. (Amended herein) The compound of Claim 16, wherein R³ is heteroalkyl optionally substituted with a heteroaryl or a heterocyclyl group.

REMARKS

This is a continuation application under 37 C.F.R. 1.53(b) of U.S. Application Serial No. 09/305,737, filed May 5, 1999, which claims the priority benefits of U.S. Provisional Application Serial No. 60/084,250, filed May 5, 1998, U.S. Provisional Application Serial No. 60/122,410, filed March 2, 1999, and U.S. Provisional Application Serial No. 60/130,369, filed April 2, 1999.

By the enclosed preliminary amendment, Claims 1, 2, 16 and 17 have been amended and Claims 18, and 33-37 have been canceled. Upon the entry of the amendment, Claims 1-17 and Claims 19-32 will be pending in the present application.

Attached hereto is Appendix A entitled "Version with Markings to Show Amendments Made", and is a marked-up version of the changes made to the claims by the present amendment. In

addition, for the convenience of the Examiner, all claims now pending following the entry of the Preliminary Amendment, are reproduced in Appendix B entitled "Pending Claims".

CONCLUSION

Applicants respectfully request that the application, as amended, be examined on its merits by the Examiner.

Respectfully submitted,



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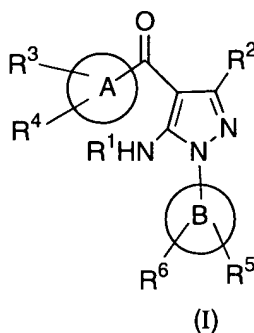
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APPENDIX A
VERSION SHOWING THE AMENDMENTS MADE

1. (Amended) A compound selected from the group of compounds represented by Formula (I):



wherein:

R^1 is hydrogen or acyl;

R^2 is hydrogen or alkyl;

A is an aryl or heteroaryl ring;

B is an aryl or heteroaryl ring;

A and B are both simultaneously an aryl or a heteroaryl ring;

R^3 is selected from the group consisting of:

- (a) ~~amino, alkylamino or dialkylamino;~~
- (b) ~~acylamino;~~
- (c) optionally substituted heterocyclyl;
- (d) optionally substituted aryl or heteroaryl;
- (e) heteroalkyl substituted with a heteroaryl or heterocyclyl group;
- (f) heteroalkenyl;
- (g) heteroalkynyl;
- (h) ~~heteroalkoxy;~~
- (i) heteroalkylamino;
- (j) optionally substituted heterocyclylalkyl;
- (k) optionally substituted heterocyclylalkenyl;

- (l) optionally substituted heterocyclalkynyl;
- (m) optionally substituted heterocyclalkoxy, cycloxy or heterocycloxy;
- (n) optionally substituted heterocyclalkylamino;
- (o) optionally substituted heterocyclalkylcarbonyl;
- (p) heteroalkylcarbonyl;
- ~~(q) NHSO_2R^6 where R^6 is alkyl, heteroalkyl or optionally substituted heterocyclalkyl;~~
- ~~(r) $\text{NHSO}_2\text{NR}^7\text{R}^8$ where R^7 and R^8 are, independently of each other, hydrogen, alkyl or heteroalkyl;~~
- (s) $-\text{Y}-(\text{alkylene})-\text{R}^9$ where:
 Y is a single bond, $-\text{O}-$, $-\text{NH}-$ or $-\text{S}(\text{O})_n-$ (where n is an integer from 0 to 2); and
 R^9 is cyano, optionally substituted heteroaryl, $-\text{COOH}$, $-\text{COR}^{10}$, $-\text{COOR}^{11}$, $-\text{CONR}^{12}\text{R}^{13}$, $-\text{SO}_2\text{R}^{14}$, $-\text{SO}_2\text{NR}^{15}\text{R}^{16}$, $-\text{NHSO}_2\text{R}^{17}$ or $-\text{NHSO}_2\text{NR}^{18}\text{R}^{19}$, where R^{10} is alkyl or optionally substituted heterocycle, R^{11} is alkyl, and R^{12} , R^{13} , R^{14} , R^{15} , R^{16} , R^{17} , R^{18} and R^{19} are, independently of each other, hydrogen, alkyl or heteroalkyl;
- (t) $-\text{C}(=\text{NR}^{20})(\text{NR}^{21}\text{R}^{22})$ where R^{20} , R^{21} and R^{22} independently represent hydrogen, alkyl or hydroxy, or R^{20} and R^{21} together are $-(\text{CH}_2)_n-$ where n is 2 or 3 and R^{22} is hydrogen or alkyl;
- (u) $-\text{NHC}(\text{X})\text{NR}^{23}\text{R}^{24}$ where X is $-\text{O}-$ or $-\text{S}-$, and R^{23} and R^{24} are, independently of each other, hydrogen, alkyl or heteroalkyl;
- (v) $-\text{CONR}^{25}\text{R}^{26}$ where R^{25} and R^{26} independently represent hydrogen, alkyl, heteroalkyl or optionally substituted heterocyclalkyl, or R^{25} and R^{26} together with the nitrogen to which they are attached form an optionally substituted heterocycl ring;
- (x) cycloalkylalkyl, cycloalkylalkynyl and cycloalkylalkynyl, all optionally substituted with alkyl, halo, hydroxy or amino;

- (y) arylaminoalkylene or heteroarylaminoalkylene;
- (z) Z-alkylene-NR³⁰R³¹ or Z-alkylene-OR³² where Z is -NH-, -N(lower alkyl)- or -O-, and R³⁰, R³¹ and R³² are independently of each other, hydrogen, alkyl or heteroalkyl;
- (aa) -OC(O)-alkylene-CO₂H or -OC(O)-NR'R'' (where R' and R'' are independently hydrogen or alkyl); and
- (bb) heteroarylalkenylene or heteroarylalkynylene;

R⁴ is selected from the group consisting of:

- (a) hydrogen;
- (b) halo;
- (c) alkyl;
- (d) alkoxy; and
- (e) hydroxy;

R⁵ is selected from the group consisting of :

- (a) hydrogen;
- (b) halo;
- (c) alkyl;
- (d) haloalkyl;
- (e) thioalkyl;
- (f) hydroxy;
- (g) amino;
- (h) alkylamino;
- (i) dialkylamino;
- (j) heteroalkyl;
- (k) optionally substituted heterocycle;
- (l) optionally substituted heterocyclalkyl;
- (m) optionally substituted heterocyclalkoxy;
- (n) alkylsulfonyl;
- (o) aminosulfonyl, mono-alkylaminosulfonyl or di-alkylaminosulfonyl;

- (p) heteroalkoxy; and
- (q) carboxy;

R⁶ is selected from the group consisting of:

- (a) hydrogen;
- (b) halo;
- (c) alkyl; and
- (d) alkoxy; and

prodrugs, individual isomers, mixtures of isomers and pharmaceutically acceptable salts thereof.

2. (Amended herein) The compound of Claim 1 wherein R³ is:

- (a) optionally substituted heterocyclyl;
- (b) aryl or heteroaryl both optionally substituted with a substituent selected from halo, alkyl, amino, alkoxy, carboxy, lower alkoxy carbonyl, SO₂R' (where R' is alkyl) or SO₂NHR'R'' (where R' and R'' are independently hydrogen or alkyl);
- (c) heteroalkyl substituted with a heteroaryl or a heterocyclyl group;
- (d) heteroalkenyl;
- (e) heteroalkylamino;
- (g) optionally substituted heterocyclylalkyl or heterocycliloxy;
- (h) optionally substituted heterocyclylalkenyl;
- (i) optionally substituted heterocyclylalkynyl;
- (j) optionally substituted heterocyclylalkoxy;
- (k) optionally substituted heterocyclylalkylamino;
- (l) optionally substituted heterocyclylalkylcarbonyl;
- (k) -Y-(alkylene)-R⁹ where Y is a single bond, -O- or -NH- and R⁹ is optionally substituted heteroaryl, -CONR¹²R¹³, SO₂R¹⁴, -SO₂NR¹⁵R¹⁶, -NHSO₂R¹⁷ or -NHSO₂NR¹⁸R¹⁹ where R¹², R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R¹⁹ are independently of each other hydrogen, alkyl or heteroalkyl;

- (l) cycloalkylalkyl, cycloalkylalkynyl and cycloalkylalkynyl, all optionally substituted with alkyl, halo, hydroxy or amino;
- (m) arylaminoalkylene or heteroaryl aminoalkylene; or
- (n) Z-alkylene-NR³⁰R³¹ where Z is -NH-, -N(alkyl)- or -O-, and R³⁰ and R³¹ are independently of each other, hydrogen, alkyl or heteroalkyl.

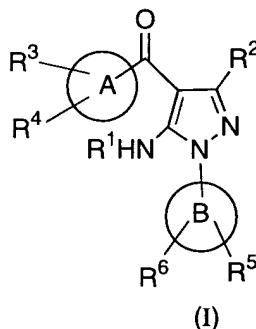
16. (Amended) The compound of Claim 5, wherein R³ is:

- (a) heteroalkyl substituted with a heteroaryl or a heterocyclyl group;
- (b) ~~heteroalkoxy~~;
- (c) heteroalkylamino;
- (d) optionally substituted heterocyclylalkyl;
- (e) optionally substituted heterocyclylalkoxy;
- (f) optionally substituted heterocyclylalkylamino;
- (g) -Y-(alkylene)-R⁹ where Y is a single bond, -O- or -NH- and R⁹ is optionally substituted heteroaryl, -CONR¹²R¹³, SO₂R¹⁴, -SO₂NR¹⁵R¹⁶, -NHSO₂R¹⁷ or -SO₂NR¹⁸R¹⁹ where R¹², R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R¹⁹ are independently of each other hydrogen, alkyl or heteroalkyl; or
- (h) Z-alkylene-NR³⁰R³¹ where Z is -NH-, -N(alkyl)- or -O-, and R³⁰ and R³¹ are independently of each other, hydrogen, alkyl or heteroalkyl.

17. (Amended herein) The compound of Claim 16, wherein R³ is heteroalkyl substituted with a heteroaryl or a heterocyclyl group.

APPENDIX B
PENDING CLAIMS 1-17 and 19-32

1. (Amended) A compound selected from the group of compounds represented by Formula (I):



wherein:

R¹ is hydrogen or acyl;

R² is hydrogen or alkyl;

A and B are simultaneously an aryl or a heteroaryl ring;

R³ is selected from the group consisting of:

- (c) optionally substituted heterocyclyl;
- (d) optionally substituted aryl or heteroaryl;
- (e) heteroalkyl substituted with a heteroaryl or heterocyclyl group;
- (f) heteroalkenyl;
- (g) heteroalkynyl;
- (i) heteroalkylamino;
- (j) optionally substituted heterocyclylalkyl;
- (k) optionally substituted heterocyclylalkenyl;
- (l) optionally substituted heterocyclylalkynyl;
- (m) optionally substituted heterocyclylalkoxy, cycloxy or heterocycloxy;
- (n) optionally substituted heterocyclylalkylamino;
- (o) optionally substituted heterocyclylalkylcarbonyl;

- (p) heteroalkylcarbonyl;
- (s) $-Y-(\text{alkylene})-R^9$ where:
 Y is a single bond, $-O-$, $-NH-$ or $-S(O)_n-$ (where n is an integer from 0 to 2); and
 R^9 is cyano, optionally substituted heteroaryl, $-COOH$, $-COR^{10}$, $-COOR^{11}$, $-CONR^{12}R^{13}$, $-SO_2R^{14}$, $-SO_2NR^{15}R^{16}$, $-NHSO_2R^{17}$ or $-NHSO_2NR^{18}R^{19}$, where R^{10} is alkyl or optionally substituted heterocycle, R^{11} is alkyl, and R^{12} , R^{13} , R^{14} , R^{15} , R^{16} , R^{17} , R^{18} and R^{19} are, independently of each other, hydrogen, alkyl or heteroalkyl;
- (t) $-C(=NR^{20})(NR^{21}R^{22})$ where R^{20} , R^{21} and R^{22} independently represent hydrogen, alkyl or hydroxy, or R^{20} and R^{21} together are $-(CH_2)_n-$ where n is 2 or 3 and R^{22} is hydrogen or alkyl;
- (u) $-NHC(X)NR^{23}R^{24}$ where X is $-O-$ or $-S-$, and R^{23} and R^{24} are, independently of each other, hydrogen, alkyl or heteroalkyl;
- (v) $-CONR^{25}R^{26}$ where R^{25} and R^{26} independently represent hydrogen, alkyl, heteroalkyl or optionally substituted heterocyclalkyl, or R^{25} and R^{26} together with the nitrogen to which they are attached form an optionally substituted heterocycl ring;
- (x) cycloalkylalkyl, cycloalkylalkynyl and cycloalkylalkynyl, all optionally substituted with alkyl, halo, hydroxy or amino;
- (y) arylaminoalkylene or heteroarylaminoalkylene;
- (z) $Z\text{-alkylene-NR}^{30}R^{31}$ or $Z\text{-alkylene-OR}^{32}$ where Z is $-NH-$, $-N(\text{lower alkyl})-$ or $-O-$, and R^{30} , R^{31} and R^{32} are independently of each other, hydrogen, alkyl or heteroalkyl;
- (aa) $-OC(O)\text{-alkylene-CO}_2H$ or $-OC(O)\text{-NR}'R''$ (where R' and R'' are independently hydrogen or alkyl); and
- (bb) heteroarylalkenylene or heteroarylalkynylene;

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R⁴ is selected from the group consisting of:

- (a) hydrogen;
- (b) halo;
- (c) alkyl;
- (d) alkoxy; and
- (e) hydroxy;

R⁵ is selected from the group consisting of :

- (a) hydrogen;
- (b) halo;
- (c) alkyl;
- (d) haloalkyl;
- (e) thioalkyl;
- (f) hydroxy;
- (g) amino;
- (h) alkylamino;
- (i) dialkylamino;
- (j) heteroalkyl;
- (k) optionally substituted heterocycle;
- (l) optionally substituted heterocyclalkyl;
- (m) optionally substituted heterocyclalkoxy;
- (n) alkylsulfonyl;
- (o) aminosulfonyl, mono-alkylaminosulfonyl or di-alkylaminosulfonyl;
- (p) heteroalkoxy; and
- (q) carboxy;

R⁶ is selected from the group consisting of:

- (a) hydrogen;
- (b) halo;
- (c) alkyl; and
- (d) alkoxy; and

prodrugs, individual isomers, mixtures of isomers and pharmaceutically acceptable salts thereof.

2. (Amended) The compound of Claim 1 wherein R^3 is:
 - (a) optionally substituted heterocyclyl;
 - (b) aryl or heteroaryl both optionally substituted with a substituent selected from halo, alkyl, amino, alkoxy, carboxy, lower alkoxy carbonyl, SO_2R' (where R' is alkyl) or $SO_2NHR'R''$ (where R' and R'' are independently hydrogen or alkyl);
 - (c) heteroalkyl substituted with a heteroaryl or a heterocyclyl group;
 - (d) heteroalkenyl;
 - (e) heteroalkylamino;
 - (g) optionally substituted heterocyclylalkyl or heterocyclyoxy;
 - (h) optionally substituted heterocyclylalkenyl;
 - (i) optionally substituted heterocyclylalkynyl;
 - (j) optionally substituted heterocyclylalkoxy;
 - (k) optionally substituted heterocyclylalkylamino;
 - (l) optionally substituted heterocyclylalkylcarbonyl;
 - (k) $-Y-(alkylene)-R^9$ where Y is a single bond, $-O-$ or $-NH-$ and R^9 is optionally substituted heteroaryl, $-CONR^{12}R^{13}$, SO_2R^{14} , $-SO_2NR^{15}R^{16}$, $-NHSO_2R^{17}$ or $-NHSO_2NR^{18}R^{19}$ where R^{12} , R^{13} , R^{14} , R^{15} , R^{16} , R^{17} , R^{18} and R^{19} are independently of each other hydrogen, alkyl or heteroalkyl;
 - (l) cycloalkylalkyl, cycloalkylalkynyl and cycloalkylalkynyl, all optionally substituted with alkyl, halo, hydroxy or amino;
 - (m) arylaminoalkylene or heteroarylaminoalkylene; or
 - (n) $Z-alkylene-NR^{30}R^{31}$ where Z is $-NH-$, $-N(alkyl)-$ or $-O-$, and R^{30} and R^{31} are independently of each other, hydrogen, alkyl or heteroalkyl.
3. The compound of Claim 2 wherein R^1 and R^2 are hydrogen; and B is phenyl.

4. The compound of Claim 3 wherein A is phenyl.
5. The compound of Claim 4 wherein R^4 is hydrogen; and R^5 is halo or alkyl.
6. The compound of Claim 5 wherein R^5 is chloro, fluoro or methyl; and R^6 is hydrogen, chloro, fluoro, methyl or methoxy.
7. The compound of Claim 5, wherein R^3 is optionally substituted heteroaryl.
8. The compound of Claim 7, wherein R^3 is pyridin-2-yl, pyridin-3-yl, pyridin-4-yl, N-oxidopyridin-2-yl, N-oxidopyridin-3-yl, N-oxidopyridin-4-yl or pyridon-2-yl, all optionally substituted.
9. The compound of Claim 8, wherein R^3 is at the 3-position.
10. The compound of Claim 9, wherein R^5 is 4-F and R^6 is hydrogen.
11. The compound of Claim 9, wherein R^5 is 2-Me and R^6 is hydrogen.
12. The compound of Claim 5, wherein R^3 is optionally substituted phenyl.
13. The compound of Claim 12, wherein R^3 is 3-sulfamoylphenyl, 3-methylsulfonylphenyl, 3-carboxyphenyl or 3-ethoxycarbonylphenyl.
14. The compound of Claim 13, wherein R^3 is at the 3-position.
15. The compound of Claim 14, wherein R^5 is 4-F and R^6 is hydrogen.

16. (Amended) The compound of Claim 5, wherein R^3 is:
- (a) heteroalkyl substituted with a heteroaryl or a heterocyclyl group;
 - (b) heteroalkoxy;
 - (c) heteroalkylamino;
 - (d) optionally substituted heterocyclylalkyl;
 - (e) optionally substituted heterocyclylalkoxy;
 - (f) optionally substituted heterocyclylalkylamino;
 - (g) $-Y-(alkylene)-R^9$ where Y is a single bond, -O- or -NH- and R^9 is optionally substituted heteroaryl, $-CONR^{12}R^{13}$, SO_2R^{14} , $-SO_2NR^{15}R^{16}$, $-NHSO_2R^{17}$ or $-NHSO_2NR^{18}R^{19}$ where R^{12} , R^{13} , R^{14} , R^{15} , R^{16} , R^{17} , R^{18} and R^{19} are independently of each other hydrogen, alkyl or heteroalkyl; or
 - (h) $Z-alkylene-NR^{30}R^{31}$ where Z is -NH-, -N(alkyl)- or -O-, and R^{30} and R^{31} are independently of each other, hydrogen, alkyl or heteroalkyl.
17. (Amended) The compound of Claim 16, wherein R^3 is heteroalkyl substituted with a heteroaryl or a heterocyclyl group.
19. The compound of Claim 18, wherein R^5 is 2-F and R^6 is 4-F.
20. The compound of Claim 18, wherein R^5 is 4-F and R^6 is hydrogen.
21. The compound of Claim 18, wherein R^5 is 2-Me and R^6 is hydrogen.
22. The compound of Claim 16, wherein R^3 is heteroalkoxy or heteroalkylamino.
23. The compound of Claim 22, wherein R^3 is at the 3-position and is selected from the group consisting of 3-dimethylaminopropoxy, 2-dimethylaminoethoxy, 2-hydroxyethoxy, 2,3-dihydroxypropoxy, 2-dimethylaminoethylamino and 3-dimethylaminopropylamino.
24. The compound of Claim 23 wherein R^5 is 4-F or 2-Me and R^6 is hydrogen.

25. The compound of Claim 16, wherein R^3 is optionally substituted heterocyclalkyl, optionally substituted heterocyclalkoxy or optionally substituted heterocyclalkylamino.
26. The compound of Claim 25, wherein R^3 is at the 3-position and is selected from the group consisting of 3-(morpholin-4-yl)propoxy, 2-(morpholin-4-yl)ethoxy, 2-(2-oxo-pyrrolidin-1-yl)ethoxy, 3-(morpholin-4-yl)propyl, 2-(morpholin-4-yl)ethyl, 4-(morpholin-4-yl)butyl, 3-(morpholin-4-yl)propylamino, 2-(morpholin-4-yl)ethylamino, 4-hydroxypiperidinylmethyl, 2-(S,S-dioxo-thiamorpholin-4-yl)ethyl, 3-(S,S-dioxo-thiamorpholin-4-yl)propyl and N-methylpiperazinylmethyl.
27. The compound of Claim 26 wherein R^5 is 4-F or 2-Me and R^6 is hydrogen.
28. The compound of Claim 16 wherein R^3 is -Y-(alkylene)- R^9 where Y is a single bond, -O- or -NH- and R^9 is optionally substituted heteroaryl, -CONR¹²R¹³, SO₂R¹⁴, -SO₂NR¹⁵R¹⁶, -NHSO₂R¹⁷ or -NHSO₂NR¹⁸R¹⁹ where R¹², R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R¹⁹ are independently of each other hydrogen, alkyl or heteroalkyl.
29. The compound of Claim 28, wherein Y is a single bond and R^9 is SO₂R¹⁴ or -SO₂NR¹⁵R¹⁶.
30. The compound of Claim 29 wherein R^3 is methylsulfonyl ethyl or sulfamoyl ethyl.
31. The compound of Claim 30 wherein R^5 is 4-F or 2-Me and R^6 is hydrogen.
32. A pharmaceutical composition comprising a therapeutically effective amount of a compound of Claim 1 and a pharmaceutically acceptable excipient.

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